

At page 22, line 22, after "C X C X₄ C X₄ C X C X₆ C X₂ C X C X₂ C" please insert
--SEQ ID NO:16--

At page 22, line 24, after "C X C X₄ C X₄ C X C X₆ C X₃ C X C X₂ C" please
insert --SEQ ID NO:17--

In the Claims

Cancel claim 3.

Amend claims 1, 7, 10, 16, 17, 18, and 25.

A²
1. (Amended) A substantially pure nucleic acid encoding a [SynMuv] LIN-37
polypeptide having about 50% or greater amino acid sequence identity to SEQ ID NO:1,
wherein said polypeptide has the ability to alter cell proliferation [selected from the group
consisting of LIN-37, LIN-35, LIN-55, LIN-53, LIN-52, LIN-54, and E2F-1].

A³
7. (Amended) A substantially pure DNA encoding [an] the amino acid sequence
of SEQ ID NO:1, wherein said DNA encodes a polypeptide having the ability to alter cell
proliferation [selected from the group consisting of SEQ ID NOS:1, 3, 5, 7, 9, 11, and
13].

A⁴
10. (Amended) A substantially pure nucleic acid comprising nucleic acid having
about 50% or greater nucleotide sequence identity to the DNA sequence of [selected from

the group consisting of SEQ ID NOS:2, 4, 6, 8, 10, 12, 14, 15, and 16] SEQ ID NO:2,
wherein said nucleic acid encodes a polypeptide having the ability to alter cell
proliferation.

16. (Amended) A cell which contains [the] a substantially pure nucleic acid
encoding [a SynMuv] a LIN-37 polypeptide having about 50% or greater amino acid
sequence identity to SEQ ID NO:1, wherein said polypeptide has the ability to alter cell
proliferation [selected from the group consisting of LIN-37, LIN-35, LIN-55, LIN-53,
LIN-52, LIN-54, and E2F-1].

17. (Amended) The cell of claim 16, said cell being present in a patient having a
condition involving altered cell proliferation [disease].

18. (Amended) A transgenic cell which contains [the] a substantially pure nucleic
acid encoding [a SynMuv] a LIN-37 polypeptide having about 50% or greater amino acid
sequence identity to SEQ ID NO:1, wherein said polypeptide has the ability to alter cell
proliferation [selected from the group consisting of LIN-37, LIN-35, LIN-55, LIN-53,
LIN-52, LIN-54, and E2F-1].

25. (Amended) A [SynMuv gene] substantially pure *lin-37* nucleic acid having

about 50% or greater nucleotide sequence identity to SEQ ID NO:2 isolated according to the method comprising:

- (a) providing a cell sample;
- (b) introducing by transformation into said cell sample a candidate [SynMuv gene]

lin-37 nucleic acid;

Ap
wk (c) expressing said candidate [SynMuv gene] lin-37 nucleic acid within said cell sample; and

(d) determining whether said cell sample exhibits an altered cell proliferation response, whereby an altered level of cell proliferation identifies a [SynMuv gene] lin-37 nucleic acid.

REMARKS

Summary of the Invention

The invention features nucleic acids encoding the LIN-37 polypeptide and vectors and cells containing the same. The activity of *lin-37* is important in the control of cell proliferation and may be used as a therapeutic compound to modulate this pathway.

Summary of the Office Action

Claims 1, 3-7, 10-18, 25 were examined in this case. All claims stand rejected. The present response cancels claim 3 and amends claims 1, 7, 10, 16, 17, 18, and 25.